Transorbital Lobotomy

Its Use in Relapsing Psychotic States

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• *Twenty-five private patients were treated by transorbital lobotomy. The period of observation after operation was from six months to three years. In 14 cases of affective disorders in which there was not adequate response to shock therapy, nine patients made social recovery and maintained good health and four were improved. Some follow-up shock therapy was necessary for about one-fifth of the patients. Of eight schizophrenic patients four made excellent social recoveries, two improved and two were not improved. In three cases of obsessive compulsive states, results were not satisfactory.*

In light of the factors of less disturbance to the total personality, absence of postoperative complications, shortened hospitalization, pecuniary savings and better clinical results, the authors prefer transorbital lobotomy to prefrontal lobotomy in private psychiatric practice and believe that in cases of frequent relapse early use of the procedure should be considered to prevent development of a chronic state.

IN PRIVATE PSYCHIATRIC practice the authors have recommended the conventional radical prefrontal lobotomy only in cases of very refractory chronic mental illnesses. In a previous report[1] attention was called to some of the drawbacks, especially the prolonged period of rehabilitation. The use of so radical a procedure in affective disorders or psychoneuroses was questioned, and the opinion was expressed that the main use for the procedure was in the treatment of chronic schizophrenia.

Since the advent of the simplified technique of transorbital lobotomy and with it an increasing number of satisfactory clinical results with few complications, the authors have recommended the procedure in a variety of conditions and at a much earlier period in the patient's mental illness, as a preventive of permanent chronic mental illness.

The present communication concerns 25 cases in which transorbital lobotomy was performed on private patients from a general hospital psychiatric department. The experience differed somewhat from other reports of more chronic cases from state hospitals. However, all of the patients were so disabled and refractory to other kinds of therapy that commitment to a state hospital was imminent. Lobotomy was advised when there was poor prognosis for relief by further treatment of conventional type.

Freeman[2, 3] described the indications, technique and complications of transorbital lobotomy, emphasized the benefit in early schizophrenia, and recommended the treatment in cases of involutional depression that are resistant to electroshock or in which maintenance therapy is necessary. He pointed out that with the less extensive transorbital lobotomy there are fewer undesirable effects than with the standard procedure. In transorbital lobotomy areas 9 and 10 are undercut and only about a third as many frontothalamic fibers are sectioned as in the standard procedure. Hence there is better preservation of personality.

Well over 100 transorbital lobotomies were reported from 1946 to 1948. Jones and Shanklin[4] reported that of 41 patients operated on in a state hospital service, 16 were improved enough to warrant parole and 12 showed fair results but remained in the hospital. In a later report on 92 cases[5] these investigators pointed out the great advantage of the procedure in selected cases of chronic involutional depression. More recently Moore, Hill and Lutz[6] reported upon use of the operation in 102 patients, most of them schizophrenic, in a state hospital. Over-all improvement was noted in 88.2 per cent of patients and recovery in 29.4 per cent, all of whom had disease of paranoid and catatonic type. Stevenson and McCausland[7] recommended prefrontal leukotomy to prevent recurring manic-depressive illness, for patients who relapse with electroshock or who cannot be carried on maintenance treatment. In a small series followed four years there were no recurrences.

Of the 25 patients in the present series, 14 had been observed for one to three years at the time of this report, and 11 for one year or less. Two were men, 23 women. The age range was 20 to 82 years.

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Two were past 60 and four were between 20 and 30 years of age. Diagnoses were as follows: Affective disorders, 14; schizophrenia, 8; obsessive compulsive neuroses, 3.

All of the patients had previously been treated by shock. Those with affective disorders had had repeated courses of electroshock in an average of four periods of hospitalization, but remission was not enduring. The schizophrenic patients had been given both electroshock and insulin shock treatment without lasting benefit and the average number of admittances to hospital in this group was five. The patients with obsessive compulsive psychoneuroses had been given psychotherapy, electroshock and subshock insulin treatments without success.

TABLE 1.—*Results of Transorbital Lobotomy in 25 Cases*

Diagnosis	No. Patients	Result* A	B	C
AFFECTIVE DISORDERS				
Manic-depressive	5	4	1	
Agitated depression	2	2		
Presenile depression	3	1	2	
Involutional melancholia	4†	2	1	
SCHIZOPHRENIC				
Catatonic	4	3		1
Paranoid	2		1	1
Mixed (schizoaffective)	3	1	1	1
OBSESSIVE COMPULSIVE	3		2	1
Total	26	13	8	4

*A—socially recovered—that is, with good adjustment at work or at home, without evidence of psychotic symptoms; B—improved and able to be with their families, but with residual manifestation of psychotic illness; C—unimproved, requiring institutional care.

†One died.

SURGICAL PROCEDURE

The transorbital technique used on these patient followed that described by Freeman.[2] In one case, that of a patient with advanced paranoid schizophrenia with auditory hallucinations, no improvement followed transorbital lobotomy, and radical lobotomy then was carried out, also without benefit.

Complications: One of the patients died of frontal lobe hemorrhage. At necropsy malignant growth, metastatic from a cancer of the breast for which mastectomy had been done previously, was noted. Third nerve palsy that lasted a few days occurred in another case. All other patients made uneventful prompt recovery from the operation and were well enough to leave the hospital in from two to four days after it was done.

Results: Results in the 25 cases are listed in Table 1.

The best results occurred in patients with affective disorders; nine of the 14 patients in the group were rated socially recovered and four as improved although two of them required further maintenance of electroshock therapy. In the schizophrenic group the best results were obtained in patients with the catatonic variety of the disease with affective admixtures of excitement or depression. The three patients with catatonic schizophrenia who were considered "socially recovered" required further postoperative electroshock therapy. One patient with chronic paranoid schizophrenia had no sustained improvement and no abatement of hallucination after orbital lobotomy or, later, after radical lobotomy.

The following reports are illustrative of the results obtained in cases of various types.

CASE 1: *Affective disorder, agitated depression.*

The patient, a woman 50 years of age, was admitted to the Herrick Memorial Hospital for the first time on December 18, 1949. A nurse for many years, she had never married and was living with two widowed sisters. The first onset of depression was in 1948, when the main content of the patient's thoughts centered around her "unforgivable sins" and the feeling that she was no good. All her preoccupations were directed to decreasing her self-esteem. A series of 14 electroshock treatments brought some improvement but the obsessive ideas continued. In February 1950 she again became depressed, agitated and self-depreciatory. At her second admittance, February 25, 1950, she had lost 40 pounds in weight. The patient was given 32 electroshock treatments and then maintenance electroshock every two weeks. Improvement was slight and relapses frequent. Transorbital lobotomy was performed August 5, 1950. Immediately pronounced mental and physical improvement occurred. After remaining at home the rest of the year the patient resumed nursing. At the time of report she had remained entirely well for 18 months.

CASE 2: *Schizoaffective catatonic, depressive and paranoidal features.*

The patient, a woman 26 years of age, was admitted to hospital on January 22, 1951. Three days after the birth of her first baby (Jan. 11, 1951) she had returned to a home situation in which no outside help had been planned except for that of her mother-in-law. The baby would not nurse and cried almost constantly. The mother-in-law became very upset and the husband wished to take no responsibility. The patient wept and could not sleep because of worry about the baby. To her own mother, who was then summoned, she could talk only about her hospital experiences, her dislike of the doctor "who let her suffer" during the birth, her fears of the spinal puncture and the episiotomy. She worried about taking narcotics and becoming an addict. She felt that her baby was abnormal, that she was losing her mind, and that her body and mind were disconnected. She talked about the motion picture "Snake Pit" and begged her mother not to send her to such an institution.

The family physician referred her to a psychiatrist. In spite of her strong resistance, shock treatment was started in the office. Once when the patient was left in the room by herself, she slashed her wrists with a razor. She was then hospitalized.

On admittance the patient appeared tense, suspicious and very depressed, with much blocking. At times she was withdrawn, mute and catatonic; at other times she would become actively hostile, necessitating seclusion. She made several suicidal attempts. A series of 24 electroshock treatments was given, without sustained improvement, followed by 13 insulin coma shocks. Transorbital lobotomy was performed May 21, 1951. The change in the patient's behavior and attitude was immediate and dramatic. All paranoidal features disappeared; mild anxiety remained for a time

and the patient felt insecure at home for a short period. At the time of report she was receiving electroshock treatment at monthly intervals and was carrying on all home responsibilities without difficulty. Her recovery was considered to be extremely good.

CASE 3: *Schizophrenia, paranoid type.*

A 60-year-old woman was admitted to hospital on October 20, 1950. In 1940 the patient had begun to worry about the menopause. Once she spoke about her nephew, who was involved in wartime maneuvers, and thought perhaps the government was after her because she had given out restricted information. Shortly thereafter she was unable to eat. Later the depression disappeared but she would talk to herself. In 1946 she began to imagine that people whom she had known from childhood were trying to do such things to her as spoiling her looks. She would shout aloud, and the neighbors complained that she shouted all the time her husband was away. She felt that the neighbors were against her. Nine electroshock treatments were given and there was slight improvement. The patient then refused further psychiatric treatment. Soon she again heard voices that she would answer in loud tones, and she became progressively worse. Transorbital lobotomy was performed October 23, 1950. The patient did not improve and the auditory hallucinations continued. On October 31, 1950, radical prefrontal lobotomy was performed, also without improvement. The patient was committed to a state hospital some months later.

CASE 4: *Obsessive compulsive neurosis, schizophrenic features.*

A man 20 years of age was admitted April 27, 1950. Compulsive habits had begun at age 14 when he repeatedly marked articles in his wardrobe and said that he suspected thefts. At age 16 he became extremely fussy about his haircuts and the style of combing his hair. Later he started pounding the steps with his foot several times before going up or down stairs, and he would also compulsively repeat such acts as going up or down stairs or closing the gate. He lost interest in his studies except for music. By Christmas of 1949 he was much worse, and would remain in bed until late in the afternoon listening to the radio. After getting up he would spend two hours or more in breathing exercises like blowing a paper against the wall and would use another two or three hours in the bathroom, washing himself and dousing his eyes with cold water. He would repeatedly manipulate his penis with a towel, paying no attention to his mother's observation. In February 1950 he had several interviews in a mental clinic but did not cooperate. In April he was admitted to Herrick Memorial Hospital, where transorbital lobotomy was performed on May 17, 1950. The patient showed fair improvement for a time, but gradually reverted to the old obsessive compulsive pattern. He was unable to make adequate social adjustment outside the home.

INDICATIONS FOR TRANSORBITAL LOBOTOMY

The authors consider the results obtained with this modified, less traumatic lobotomy procedure at least equal to and perhaps better than those obtained by the radical operation, and recommend its use relatively early in selected cases in which it appears mental disease may become chronic.

In affective states in which a reasonably adequate course of shock therapy has failed to bring sustained recovery or in which there is early or frequent relapse or lack of response to maintenance shock therapy, transorbital lobotomy has given uniformly good results. In about a fifth of schizoaffective cases, some postoperative electroshock treatment has been necessary. However, fewer treatments are needed in order to hold the patient in good emotional control, and the treatments are more easily administered. Transorbital lobotomy also is recommended for schizophrenic patients who have not responded well to both insulin and electroshock and in whom either distinct affective components or aggressive paranoidal symptoms are present. The authors agree with Stevenson and McCausland that prophylactic leukotomy offers the best hope for breaking the recurrent cycles of manic-depressive illness.

Pecuniary factors and emotional considerations in the family of the patient enter into decision between lobotomy and prolonged hospitalization and shock therapy. When the outlook is that of prolonged expense for treatment or of a decision for commitment to a state hospital, the authors discuss with the relatives the advisability of lobotomy. From the standpoint of private practice, transorbital lobotomy has considerable advantage over the more radical prefrontal operation. The radical procedure entails a long period of postoperative somnolence and apathy, and rehabilitation and nursing management are costly. Complications such as prolonged incontinence and organic epilepsy are not infrequent, and bulimia caused by posteriorly placed incisions occasionally occurs.

None of these problems occur in connection with transorbital incisions. There is less of the frontal lobe syndrome following transorbital operation. The less extensive operation brings about sufficient change, such as loss of self-consciousness and of anxiety and lessening of hostility, to produce the desired clinical results without the more pronounced tactlessness, lack of concern and indifference that follow the radical procedure.

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